

TM 55-265

WAR DEPARTMENT

U.S. Dept of Army
TECHNICAL MANUAL

not supervised by
"Catechism on"

TRANSPORTATION RULES
MILITARY RAILWAY SERVICE

May 25, 1943



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TECHNICAL MANUAL
TRANSPORTATION RULES
MILITARY RAILWAY SERVICE

CHANGES }
No. 1 }

(45) WAR DEPARTMENT,
WASHINGTON 25, D. C., 20 September 1943.

TM 55-265, 25 May 1943, is changed as follows:

In paragraph 12, page 7, add the following legends at the lower right-hand corner of illustrations:

Page 7, a. **Stop.**

Page 8 (upper), b. **REDUCE SPEED.**

Page 8 (lower), c. **PROCEED.**

Page 9 (upper), d. **BACK.**

Page 9 (lower), e. **TRAIN HAS PARTED.**

Page 10 (upper), f. **APPLY AIR BRAKES.**

Page 10 (lower), g. **RELEASE AIR BRAKES.**

Page 11, 12f. **APPLY AIR BRAKES.** Swing horizontally above the head when standing.

[A. G. 300.7 (28 Aug 43).] (C 1, 20 Sep 43.)

BY ORDER OF THE SECRETARY OF WAR:

G. C. MARSHALL,
Chief of Staff.

OFFICIAL:

J. A. ULIO,
Major General,
The Adjutant General.

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TM 55:265
1943



This book issued to:

NAME-----
(Last name) (First name) (Middle initial)

A. S. N-----

Personnel whose duties are prescribed by these rules and regulations are required to provide themselves with a copy; therefore, this book may be in the individual's possession while on active duty in the presence of the enemy. In the interest of military security nothing will be written, printed, or stamped on any of the pages except the soldier's name and Army Serial Number, in the space provided above.

M558383

TRANSPORTATION RULES—MILITARY RAILWAY SERVICE

GENERAL NOTICE

The mission of the Military Railway Service is to provide prompt and dependable transportation by rail of troops and supplies required by the military forces in the execution of the tactical mission assigned to the combat forces.

All personnel in the Military Railway Service will exert every effort to insure the prompt movement of all trains at all times.

The rules and regulations herein set forth govern the railways operated by the Military Railway Service in the theater of operations.

Special instructions may be issued by proper authority.

The word "railway," as used in these rules, is intended to cover any railroad or railway company being operated as a part of the Military Railway Service, as well as new railways built for operation by the Military Railway Service.

GENERAL RULES

1. All personnel whose duties are prescribed by these rules and regulations will provide themselves with a copy.

All personnel whose duties are in any way affected by timetables will have a copy of the current timetable with them while on duty.

2. All personnel will be conversant with and obey the rules and special instructions. If in doubt as to their meaning, they will apply to proper authority for an explanation.

3. All personnel must pass the required examinations.

4. Personnel employed in any service on trains are subject to the rules and special instructions.

5. All personnel will render every assistance in their power in carrying out the rules and special instructions and will report to the proper official any violations thereof.

***This manual supersedes TM 5-415, 1941.**

MILITARY RAILWAY SERVICE

6. Any condition which may adversely affect the movement of trains or engines will be promptly reported by the quickest available means to the proper official.

7. The use of intoxicants while on duty is prohibited. Personnel reporting for duty under the influence of intoxicants will be subject to disciplinary action.

8. Division superintendents will issue orders relating to smoking by personnel on duty at passenger stations or on passenger trains. Such orders shall conform at all times to restrictions regarding smoking as issued by higher military authorities.

9. Such identification badges as may be prescribed for the Military Railway Service will be worn by personnel in this service.

10. Military railway property and equipment will be protected by personnel of the Military Railway Service and such other troops as may be designated.

11. All personnel will be on the alert at all times to detect defective or unserviceable track or equipment. If facilities for making necessary repairs are not immediately available, necessary protection will be afforded, and prompt report made to the division superintendent or his assistant.

a. They will inform themselves as to the location of structures or obstruction where clearances are close.

b. They must expect trains to run at any time, on any track, in either direction.

c. They will not stand on the track in front of an approaching engine or car for the purpose of boarding same.

DEFINITIONS

Military railway.—A railway line in the theater of operations used for the movement of military railway traffic.

Regulating station.—A railway yard in the theater of operations through which military railway traffic moves under the control of a regulating officer.

Railhead.—A point on or at the forward end of a military railway, at which troops and supplies are discharged for distribution by means of other transportation agencies.

Theater of war.—Those areas of land, sea, and air which are or may become directly involved in the conduct of war.

Theater of operations.—An area of the theater of war necessary for military operations and the administration and supply incident to military operations. The War Department designates one or more theaters of operations.

Combat zone.—That part of a theater of operations required for the active operations of the combatant forces. It is divided into army, corps, and division areas, each comprising the zone of operations of the unit to which it pertains.

Communications zone.—That part of a theater of operations, contiguous to the combat zone, which contains the lines of communication, establishments for supply and evacuation, and other agencies required for the immediate support and maintenance of the field forces in the theater of operations.

Zone of the interior.—The area of the national territory exclusive of areas included in the theater of operations.

Engine.—A unit propelled by any form of energy and used in train or yard service.

Train.—An engine, or more than one engine, coupled, with or without cars, displaying markers.

Regular train.—A train authorized by a timetable schedule.

Section.—One of two or more trains running on the same schedule displaying signals or for which signals are displayed.

Extra train.—A train not authorized by a timetable schedule. It may be designated as—

a. Extra.—For any extra train, except passenger extra or work extra.

b. Passenger extra.—For passenger train extra.

c. Work extra.—For work train extra.

Superior train.—A train having precedence over another train.

Train of superior right.—A train given precedence by train order.

Train of superior class.—A train given precedence by timetable.

Train of superior direction.—A train given precedence in the direction specified by timetable as between opposing trains of the same class.

Timetable.—The authority for the movement of regular trains subject to the rules. It contains the classified schedules of trains with special instructions relating thereto.

Schedule.—That part of a timetable which prescribes class, direction, number, and movement for a regular train.

Division.—That portion of a railroad assigned to the supervision of a superintendent.

Subdivision.—A portion of a division designated by timetable.

Main track.—A track extending through yards and between stations, upon which trains are operated by timetable or train order, or both, or the use of which is governed by block signals.

Single track.—A main track upon which trains are operated in both directions.

Two or more tracks.—Two or more main tracks, upon any of which the current of traffic may be in either specified direction.

Current of traffic.—The movement of trains on a main track, in one direction, specified by the rules.

Station.—A place designated on the timetable by name.

Siding.—A track auxiliary to the main track for meeting or passing trains.

Fixed signal.—A signal of fixed location indicating a condition affecting the movement of a train.

NOTE.—The definition of a "fixed signal" covers such signals as slow boards, stop boards, yard limits, switch, train order, block, inter-locking, semaphore, disk, ball, or other means for displaying indications that govern the movement of a train.

Yard.—A system of tracks within defined limits provided for the making up of trains, storing of cars and other purposes, over which movements not authorized by timetable, or by train order, may be made, subject to prescribed signals and rules, or special instructions.

Yard engine.—An engine assigned to yard service and working within yard limits.

Pilot.—A soldier or civilian assigned to a train when the engineman or conductor, or both, are not fully acquainted with the physical characteristics or rules of the railroad, or portion of the railroad over which the train is to be moved.

Train register.—A book or form which may be used at designated stations for registering signals displayed, the time of arrival and departure of trains, and such other information as may be prescribed.

Reduced speed.—Proceed prepared to stop short of train or obstruction.

Yard speed.—A speed that will permit stopping within one-half the range of vision.

OPERATING RULES

NOTE.—Rules with a prefix "S" are for single track; those with a prefix "D" are for two or more tracks. Rules without a prefix are for single and two or more tracks.

STANDARD TIME

1. Standard Time obtained from GHQ will be transmitted to all points from designated offices at 12 o'clock, noon, daily, or at such other time as may be prescribed by the General Manager, Military Railway Service.

The time prescribed by the theater commander will be used in the

Military Railway Service. This may be the familiar AM and PM divisions of 12 hours each, or a 24-hour system.

2. Watches issued by the Military Railway Service will be used by the following personnel and such other personnel as may be designated:

- Assistant trainmasters
- Assistant yardmasters
- Brakemen
- Conductors
- Enginemen
- Yard foremen
- Firemen
- Flagmen
- Hostlers
- Road foremen of engines
- Trainmasters
- Train dispatchers
- Train order operators
- Towermen
- Yardmasters
- Switchmen

a. Watch inspection certificates (MRS Form No. 300), issued to the personnel designated above, must be renewed and filed with division superintendent monthly.

b. In addition to the monthly inspection, all officers and personnel designated as required to carry certified watches will submit watches for weekly comparison and sign the record thereof on form prescribed therefor.

3. Where standard clocks are available, watches of train dispatchers, conductors, enginemen, hostlers, and engine foremen will be compared with a standard clock before commencing each day's work or trip. The time when watches are compared will be registered on a prescribed form.

a. Conductors, enginemen, hostlers, engine foremen, and train-order operators, whose duties preclude access to a standard clock, will obtain time from train dispatchers, or compare and regulate their watches daily with those of conductors and enginemen who have standard time and have registered as provided.

b. In the event of failure of communication by telegraph, telephone, or radio with GHQ, it may be necessary to transmit time by courier, and in the event of such failure, effort will be made to secure standard time from any source possible.

c. Conductors, or engine foremen, and enginemen will also compare

time with each other and with trainmen, or yardmen, and firemen before commencing each day's work or trip.

TIMETABLES

4. Each timetable, from the moment it takes effect, supersedes the preceding timetable, and its schedules take effect on any division or subdivision at the leaving time at their initial stations on such division or subdivision. But when a schedule of the preceding timetable corresponds in number, class, day of leaving, direction, and initial and terminal stations with a schedule of the new timetable, a train authorized by the preceding timetable will retain its train orders and assume the schedule of the corresponding number of the new timetable.

Schedules on each division, or subdivision, date from their initial stations on such division or subdivision.

Not more than one schedule of the same number and day shall be in effect on any division or subdivision.

5. Not more than two times are given for a train at any station; where one is given, it is, unless otherwise indicated, the leaving time; two are the arriving and the leaving time.

The time applies at the switch where an opposing train clears; where there is no switch, it applies at the station.

Schedule meeting or passing stations are indicated by figures in full-faced type.

Both the arriving and leaving time of a train are in full-faced type when both are meeting or passing times, or when one or more trains are to meet or pass it between those times.

Where there are one or more trains to meet or pass a train at any station, attention is called to it by the numbers of the trains to be met or passed in small figures adjoining.

6. The following letters when placed before the figures of the schedule indicate:

L—leave.

A—arrive.

s—regular stop.

f—flag stop to receive or discharge traffic.

SIGNALS

7. All personnel whose duties may require them to give signals will provide themselves with the proper appliances and keep them in good order, ready for immediate use.

8. Flags of the prescribed color will be used by day and lights of the prescribed color by night. The use of lights as signals of any

kind during blackouts or other special situations will be subject to such special instructions as may be issued at the time by proper authority.

9. Day signals will be displayed from sunrise to sunset, but when day signals cannot be plainly seen night signals will be used in addition.

Night signals will be displayed from sunset to sunrise.

10. Color signals.

<i>Color</i>	<i>Indication</i>
a. Red	Stop.
b. Yellow	Proceed at reduced speed, and for other uses prescribed by the rules.
c. Green	Proceed, and for other uses prescribed by the rules
d. Green and white	Flag stop. (See Rule 28.)
e. Blue	(See Rule 26.)
f. Purple	Stop. (Indication for dwarf signals.)

11. A fusee burning on or near the track of an approaching train must be extinguished. The train may then proceed at reduced speed.

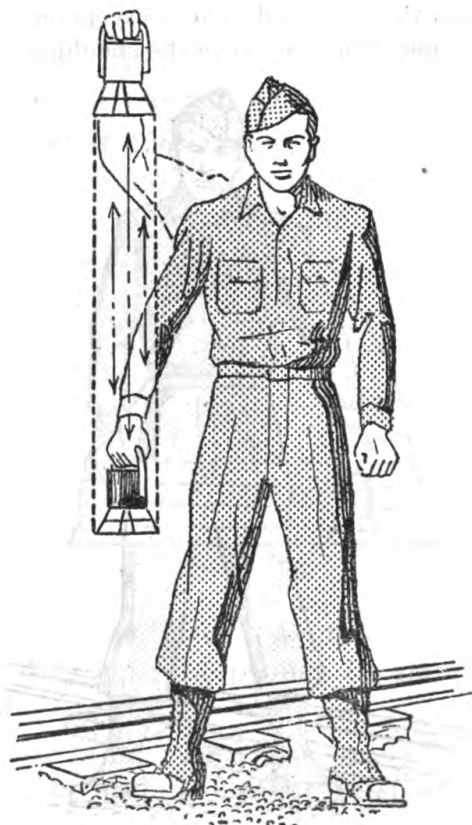
12. Hand, flag, and lamp signals.

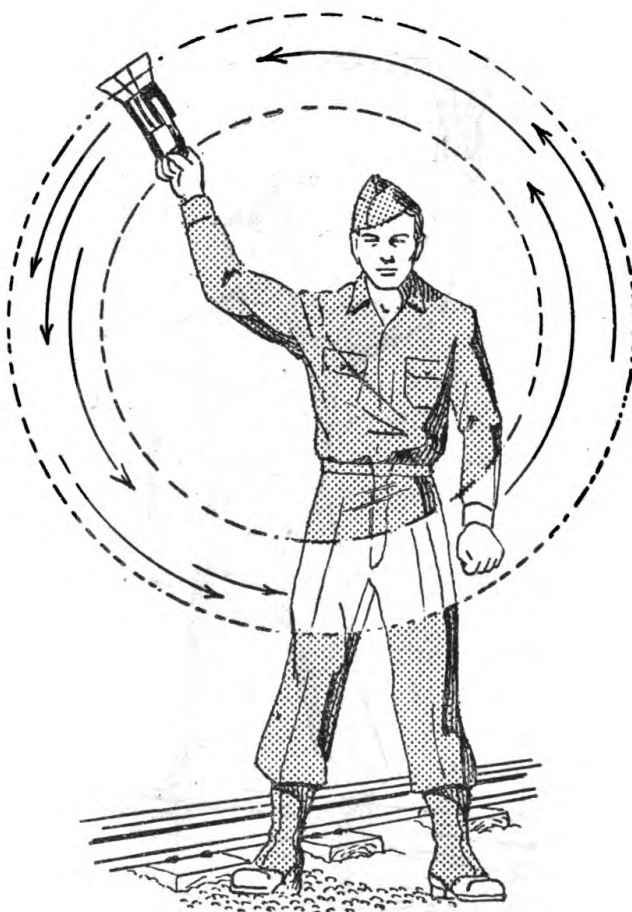
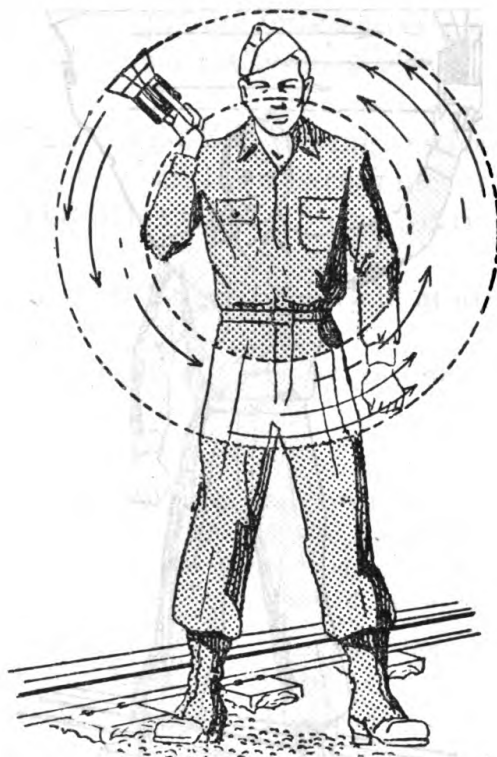
Note.—The hand, or a flag, moved the same as the lamp, as illustrated in the following diagrams, gives the same indication, except in the observance of Rule 12a the hand or flag movement may be above the shoulder.



12a. STOP. Swing across track.

12b. REDUCE SPEED. Held horizontally at arm's length.







12c. PROCEED. Raised and lowered vertically.

12d. BACK. Swing vertically in a circle at half arm's length across the track.

12e. TRAIN HAS PARTED. Swing vertically in circle at arm's length across the track, when train is running.

12f. APPLY AIR BRAKES. Swing vertically above the head when standing.

12g. RELEASE AIR BRAKES. Held at arm's length above the head when standing.

12h. Any object waved violently by any one on or near the track is a signal to stop.

14. Engine whistle signals.

NOTE.—The signals prescribed are illustrated by "o" for short sounds; "—" for longer sounds. The sound of the whistle should be distinct, with intensity and duration proportionate to the distance signal is to be conveyed. The use of the whistle may be restricted or prohibited by special instructions.

<i>Sound</i>	<i>Indication</i>
a. o	Apply brakes. Stop.
b. — —	Release brakes. Proceed.
c. — o o o	Flagman protect rear of train.
d. — — — —	Flagman may return from west or south.*
e. — — — — —	Flagman may return from east or north.*
g. o o	Answer to 14k or any signal not otherwise provided for.
h. o o o	When standing, back. Answer to 12d and 16c. When running, answer to 16d.
j. o o o o	Call for signals.
k. — o o	<i>Single track:</i> To call attention of engine and train crews of trains of the same class, inferior trains, and yard engines, and of trains at train-order meeting points, to signals, displayed for a following section. If not answered by a train, the train displaying signals must stop and ascertain the cause.
	<i>Two or more tracks:</i> To call attention of engine and train crews of trains of the same class to inferior trains moving in the same direction, to yard engines, or to signals displayed for a following section.
l. — — o —	Approaching highway crossings at grade. To be prolonged or repeated until crossing is reached.

*As prescribed by Rule 99.

- m.* ————— Approaching stations, junctions, railroad crossings at grade and drawbridges, as may be required.
- n.* -- o Approaching meeting or waiting points. See rule S-90.
- o.* o — Inspect train line for leak or for brakes sticking.
- p.* Succession of short sounds Alarm for persons or live stock on the track.
- q.* -- o When running against the current of traffic:
- (1) Approaching stations, curves, or other points where view may be obscured.
 - (2) Approaching passenger or freight trains and when passing freight trains.
 - (3) Preceding the signals prescribed by 14*d*, *e*, *r*, *s*, *t*, *u*, *v*, and *w*.

For additional tracks the following signals may be used:

- r.* ----- o Flagman may return from east or north on ----- track.*
- s.* ----- o Flagman may return from west or south on ----- track.*
- t.* ----- o o Flagman may return from east or north on ----- track.*
- u.* ----- o o Flagman may return from west or south on ----- track.*
- v.* ----- o o o Flagman may return from east or north on ----- track.*
- w.* ----- o o o Flagman may return from west or south on ----- track.*

15. The explosion of two torpedoes is a signal to proceed at reduced speed. The explosion of one torpedo will indicate the same as two, but the use of two is required.

Torpedoes will not be placed at stations, or on crossings.

16. Communicating signals.

NOTE.—The signals prescribed are illustrated by "o" for short sounds; "—" for longer sounds.

- a.* o o When standing—start.
- b.* o o When running—stop at once.
- c.* o o o When standing—back.
- d.* o o o When running—stop at next passenger station.
- e.* o o o o When standing—apply or release air brakes.
- f.* o o o o When running—reduce speed.

*As prescribed by Rule 99.

<i>g.</i> o o o o o	When standing—recall flagman.
<i>h.</i> o o o o o	When running—increase speed.
<i>j.</i> o o o o o o	When running—increase train heat.
<i>k.</i> o - o	Shut off train heat.
<i>l.</i> —————	When running—brakes sticking; look back for hand signals.

17. The headlight will be displayed at the front of every train by night. It will be concealed or extinguished when a train turns out to meet another and has stopped clear of the main track.

The headlight will be dimmed—

- a.* While passing through yards where yard engines are employed.
- b.* Approaching stations at which stops are to be made, or where trains are receiving or discharging passengers.
- c.* Approaching train order signals, junctions, terminals, meeting points, or while standing on main track.
- d.* On two or more tracks when approaching train in the opposite direction.

When an engine is running backward a white light will be displayed by night on the rear of the tender.

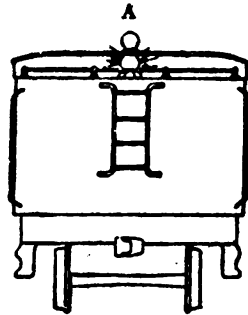


FIG. 1.

Running backward by night without cars, or at the front of a train pulling cars.

White light at A.

18. Yard engines will display the headlight at both the front and rear by night. When not provided with a headlight at the rear, a white light will be displayed.

19. Signals indicated in Figures 2 to 11, inclusive, will be displayed at the rear of every train as markers to indicate the rear of the train:

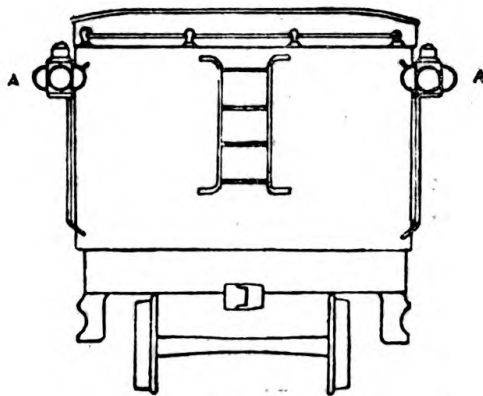


FIG. 2.

Running forward by day, without cars or at the rear of a train pushing cars.

Marker lamps not lighted, or yellow (or green) flags at A A as markers.

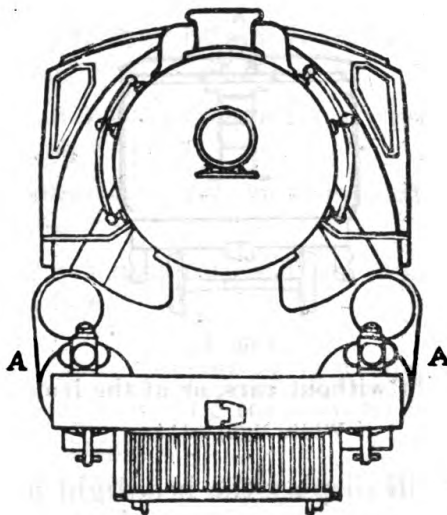


FIG. 3.

Running backward by day, without cars or at the rear of a train pushing cars.

Marker lamps not lighted, or yellow (or green) flags at A A as markers.

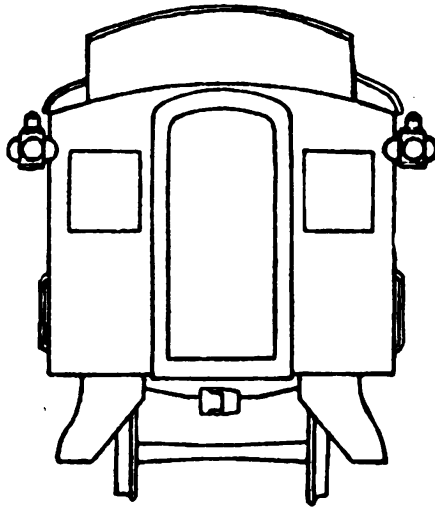


FIG. 4.

Rear of train by day.

Marker lamps not lighted, or yellow (or green) flags at A A as markers.

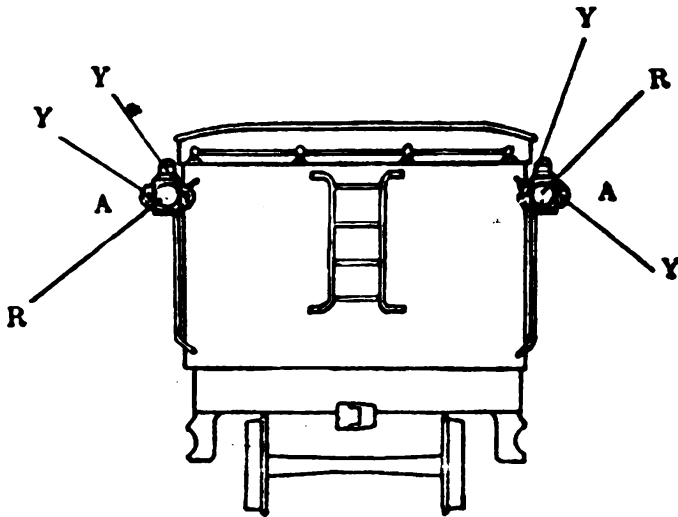


FIG. 5.

Running forward by night, without cars or at the rear of a train pushing cars on single track, with the current of traffic on two tracks and with the current of traffic on passenger tracks where there are three or more tracks.

Lights at A A as markers, showing yellow (or green) to the front and side and red to the rear.

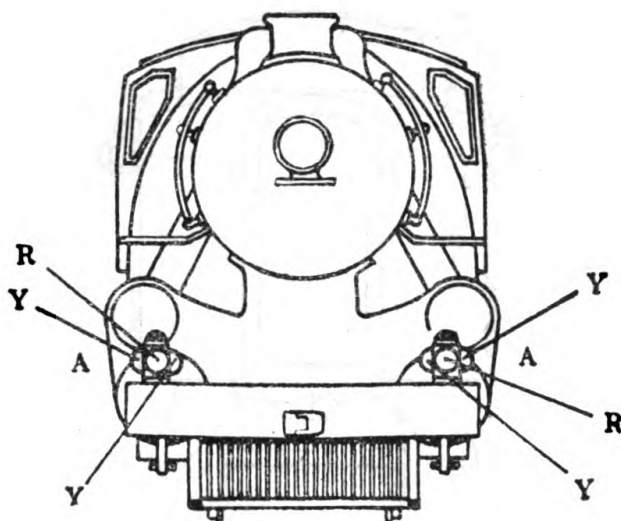


FIG. 6.

Running backward by night, without cars, or at the rear of a train pushing cars on single track, with the current of traffic on two tracks and with the current of traffic on passenger tracks where there are three or more tracks.

Lights at A A as markers, showing yellow (or green) to side and in direction engine is moving and red in opposite direction.

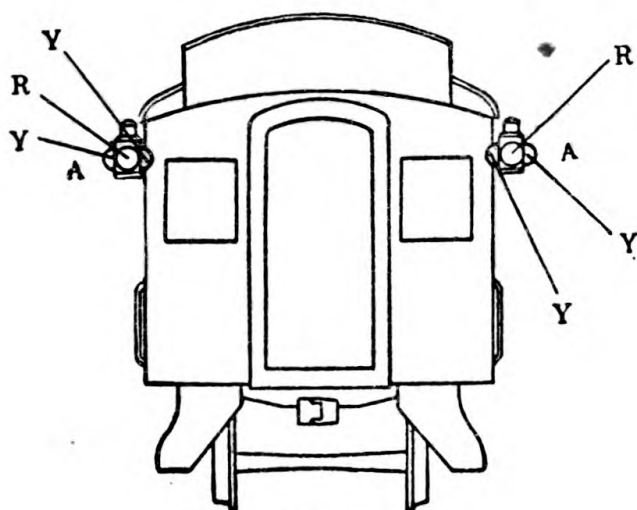


FIG. 7.

Rear of train by night while running on single track, with the current of traffic on two tracks and with the current of traffic on passenger tracks where there are three or more tracks.

Lights at A A as markers, showing yellow (or green) to the front and side and red to the rear.

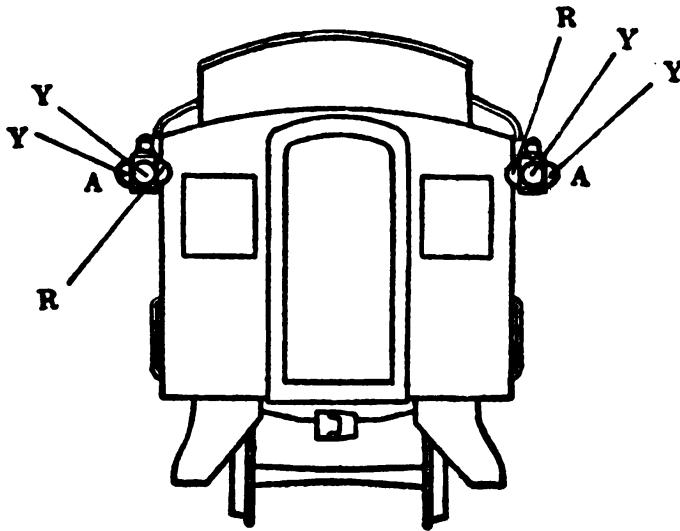


FIG. 8.

Rear of train by night when clear of main track.

Lights at A A as markers, showing yellow (or green) to the front, side and to rear.

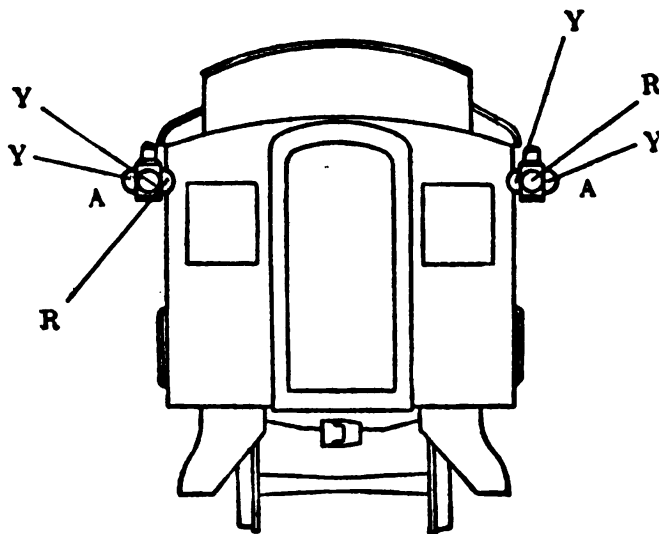


FIG. 9.

Rear of train by night running with the current of traffic on designated track where there are three or more tracks.

Lights at A A as markers, showing yellow (or green) to rear on the side next to the—other—track in the direction of current of traffic and red on the opposite side.

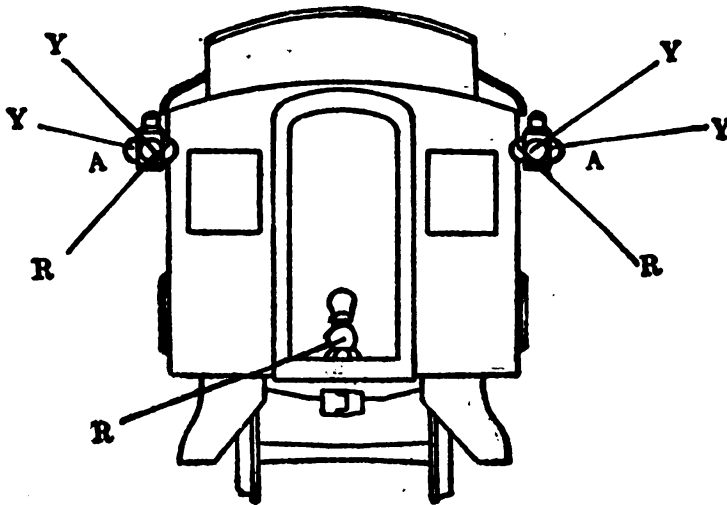


FIG. 10.

Rear of train by night running on any track against the current of traffic where there are three or more tracks.

Lights at A A as markers, showing yellow (or green) to the rear, with a red light on the platform or the cupola.

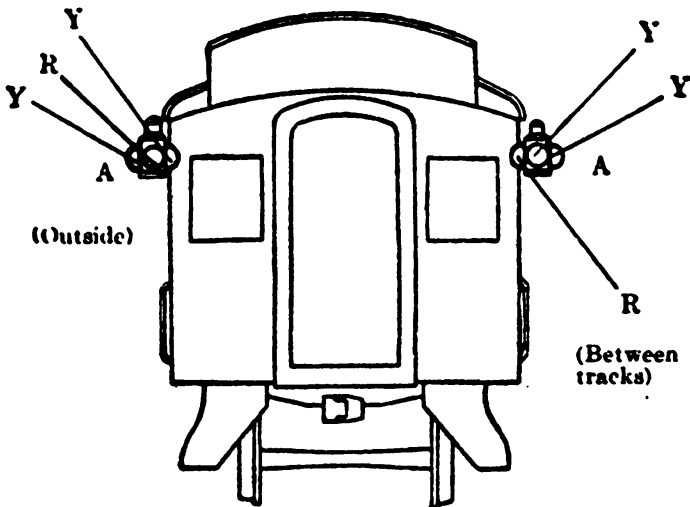


FIG. 11.

(This illustration is for a road which uses the right hand track.)

Rear of train by night running against the current of traffic on two tracks.

Lights at A A as markers, showing yellow (or green) to front and side and yellow (or green) to the rear on the side next to the main track on which the current of traffic is in the direction the train is moving and red to the rear on the opposite side.

NOTE to Rules 17, 19, 20, and 21: The diagrams are intended to illustrate the general location of the train signals, not the exact manner in which they are to be attached.

A train not equipped to display the prescribed signals will display a red flag by day and a red light by night to indicate the rear of the train.

20. All sections except the last will display two green flags and, in addition, two green lights by night in the places provided for that purpose on the front of the engine.

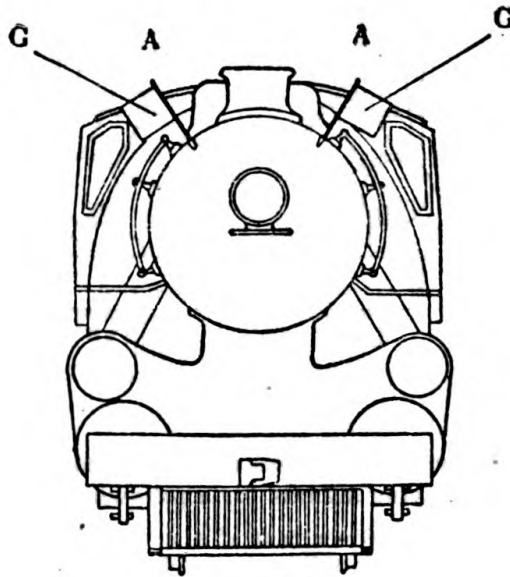


FIG. 12.

Running forward by day displaying signals for a following section.

Green flags at A A.

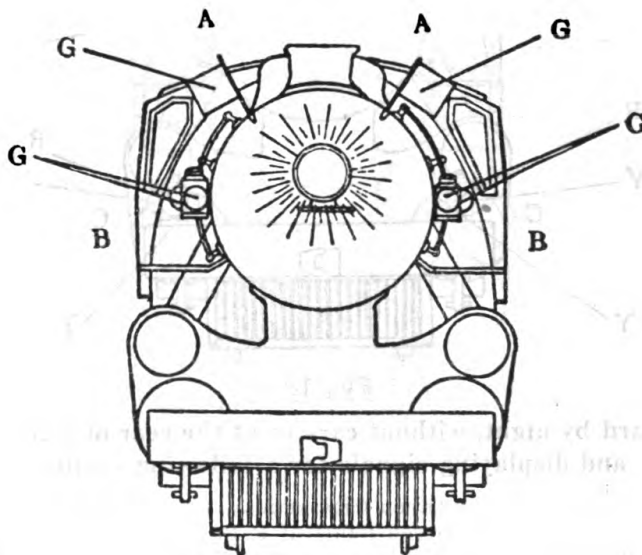


FIG. 13.

Running forward by night displaying signals for a following section.

Green flags at A A and green lights at B B.

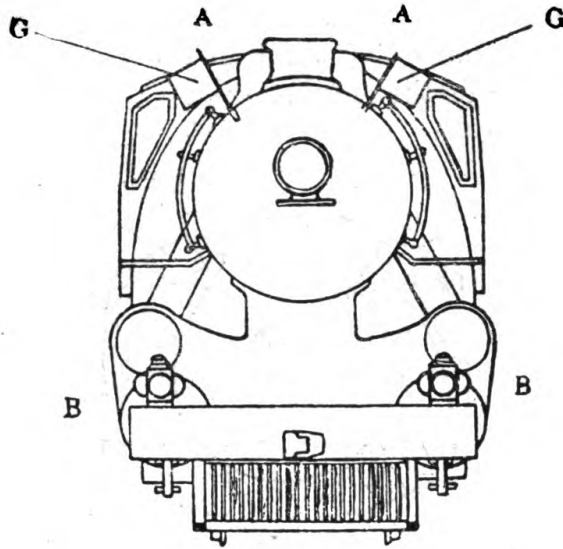


FIG. 14.

Running backward by day, without cars or at the rear of a train pushing cars, and displaying signals for a following section.

Green flags at A A.

Marker lamps not lighted, or yellow (or green) flags at B B as markers.

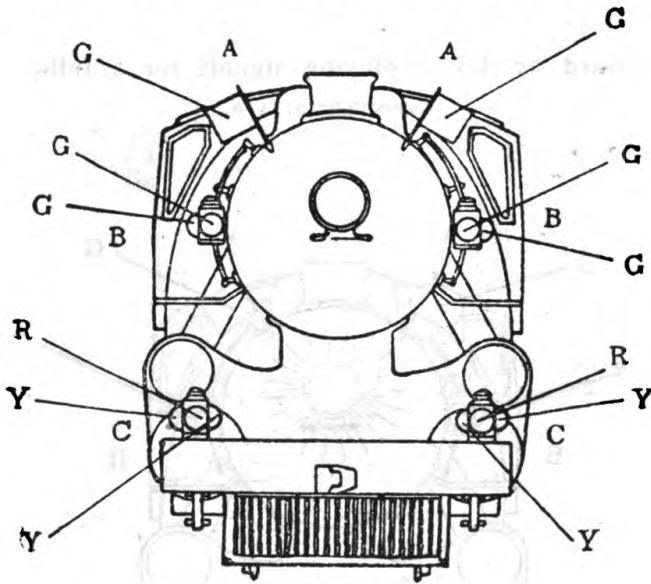


FIG. 15.

Running backward by night, without cars or at the rear of a train pushing cars, and displaying signals for a following section.

Green flags at A A.

Green lights at B B.

Lights at C C as markers, showing yellow (or green) to side and in direction engine is moving and red in opposite direction.

21. Extra trains will display two white flags and, in addition, two white lights by night, in the places provided for that purpose on the front of the engine.

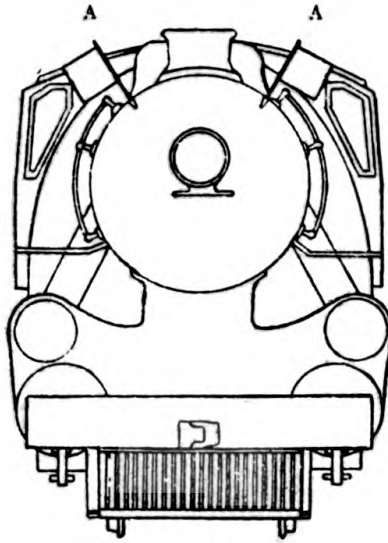


FIG. 16.

Running forward by day as an extra train.

White flags at A A.

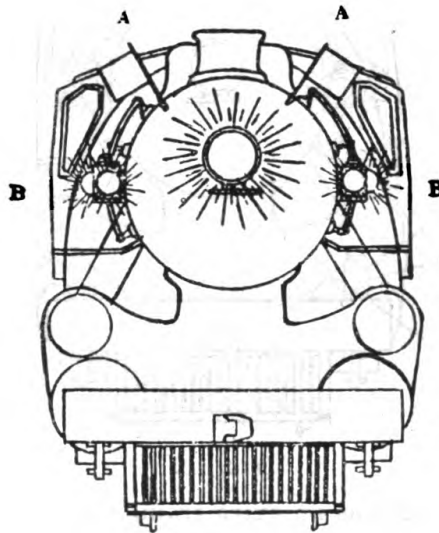


FIG. 17.

Running forward by night as an extra train.

White flags at A A and white lights at B B.

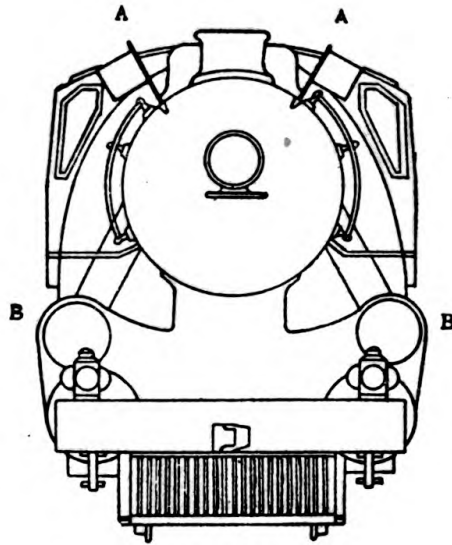


FIG. 18.

Running backward by day as an extra train, without cars or at the rear of a train pushing cars.

White flags at A A.

Marker lamps not lighted, or yellow (or green) flags at B B as markers.

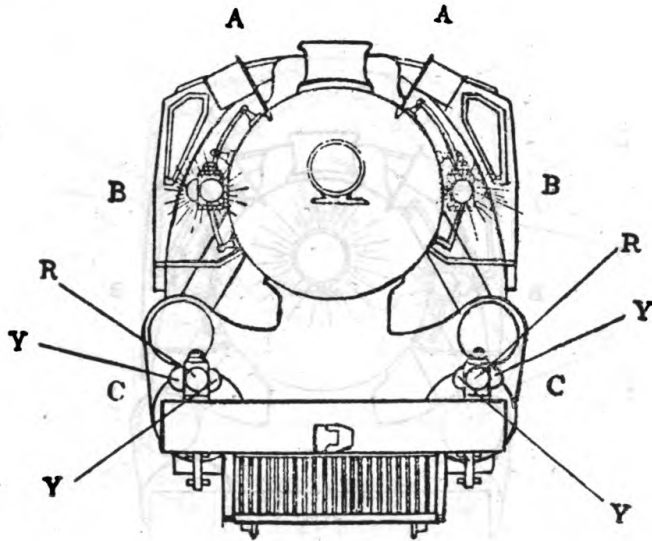


FIG. 19.

Running backward by night as an extra train, without cars or at the rear of a train pushing cars.

White flags at A A.

White lights at B B.

Lights at C C as markers, showing yellow (or green) to side and in direction engine is moving and red in opposite direction.

22. When two or more engines are coupled, signals shall be displayed on the leading engine as prescribed by Rules 20 and 21.

23. One flag or light displayed where two are prescribed (Rules

20 and 21) will indicate the same as two; but the proper display of all train signals is required.

25. Each car of a passenger train will be connected with the engine by a communicating signal appliance where such signal appliances are provided; where not provided, enginemen and trainmen will be governed by hand, flag, or lamp signals as prescribed in Rule 12.

26. Except as otherwise prescribed, a blue signal, displayed at one or both ends of an engine, car, or train, indicates that workmen are under or about it; when thus protected it will not be coupled to or moved. Each class of workmen will display the blue signals and the same workmen are alone authorized to remove them. Other equipment will not be placed on the same track so as to intercept the view of the blue signals, without first notifying the workmen.

When emergency repair work is to be done under or about cars in a train and a blue signal is not available, the engineman and fireman will be notified and protection will be given those engaged in making repairs.

USE OF SIGNALS

27. A signal imperfectly displayed, or the absence of a signal at a place where a signal is usually shown, except during blackouts, will be regarded as the most restrictive indication that can be given by that signal, except that when the day indication is plainly seen, or when sufficient lights in a position or color position light signal are displayed to determine indication of the signal, it will govern.

Engine and train crews using a switch where the switch light is imperfectly displayed or absent, will, if practicable, correct or replace the light.

A signal imperfectly displayed, or the absence of a signal at a place where a signal is usually shown, will be promptly reported to the train dispatcher.

28. A green and white signal will be used to stop a train only at the flag stations indicated on its schedule.

29. When a signal, except a fixed signal, is given to stop a train, it will, unless otherwise provided, be acknowledged as prescribed by Rule 14*g* or *h*.

30. Unless prohibited by special instructions, the engine bell will be rung when an engine is about to move; while approaching and passing highway crossings at grade; and while moving through cities, towns, yards, and tunnels.

32. The unnecessary use of either the whistle or the bell is prohibited.

33. Watchmen stationed at highway crossings at grade will use stop signals when necessary to stop trains. They will use prescribed signals to stop highway traffic.

34. All members of engine and train crews will, when practicable, communicate to each other by its name the indication of each signal affecting the movement of their train or engine.

35. The following signals will be used by flagmen:

Day signals: a red flag, torpedoes, fusees.

Night signals: a red light, torpedoes, fusees.

SUPERIORITY OF TRAINS

S-71. A train is superior to another train by right, class, or direction.

Right is conferred by train order; class and direction by timetable.

Right is superior to class or direction.

Direction is superior as between trains of the same class.

D-71. A train is superior to another train by right or class.

Right is conferred by train order; class by timetable.

Right is superior to class.

S-72. Trains of the first class are superior to those of the second; trains of the second class are superior to those of the third; and so on.

Trains in the direction specified by the timetable are superior to trains of the same class in the opposite direction.

D-72. Trains of the first class are superior to those of the second; trains of the second class are superior to those of the third; and so on.

73. Extra trains are inferior to regular trains.

MOVEMENT OF TRAINS

82. Timetable schedules, unless fulfilled, are in effect for 12 hours after their time at each station.

Regular trains more than 12 hours behind either their schedule arriving or leaving time at any station lose both right and schedule, and can thereafter proceed only as authorized by train order.

S-83. A train will not leave its initial station on any division, subdivision, or junction, or pass from one of two or more tracks to single track, until it has been ascertained whether all trains due, which are superior, have arrived or left.

Stations at which train registers are located will be designated by timetable.

D-83. A train will not leave its initial station on any division, subdivision, or junction, until it has been ascertained whether all superior trains due have left.

Stations at which train registers are located will be designated by timetable.

83 a. Unless otherwise provided, a train will not leave its initial station, on any division or subdivision, without a clearance.

84. A train will not start until the proper signal is given.

85. Trains of one schedule may pass trains of another schedule of the same class, and extra trains may pass and run ahead of second and third class trains and extra trains. Third class trains may pass or run ahead of second class trains.

A section may pass and run ahead of another section of the same schedule, first exchanging train orders, signals, and numbers with the section to be passed. The change in sections must be reported from the next available point of communication.

86. Unless otherwise provided, an inferior train will be clear at the time a superior train in the same direction is due to leave the next station in the rear where time is shown.

S-87. An inferior train will keep out of the way of opposing superior trains; or, failing to clear the main track by the time required by rule will be protected as prescribed by Rule 99.

Extra trains will clear the time of opposing regular trains not less than 5 minutes, unless otherwise provided, and will be governed by train orders with respect to opposing extra trains.

S-88. At meeting points between extra trains, the train in the inferior timetable direction will take the siding unless otherwise provided.

Trains will pull into the siding when practicable; if necessary to back in, the train will first be protected as prescribed by Rule 99, unless otherwise provided.

S-89. At meeting points the inferior train will take the siding and clear the time of the superior train not less than 5 minutes, except at schedule meeting points between trains of the same class, where the inferior train will clear the main track before the leaving time of the superior train.

The superior train will stop at schedule meeting points with trains of the same class unless switch is properly lined and track clear. The inferior train will pull into the siding when practicable. If necessary to back in, unless otherwise provided, it will be protected as prescribed by Rule 99.

S-90. The engineman of each train will give signal 14n at least 1 mile before reaching a meeting or waiting point.

91. Unless some form of block system is used, trains moving in the same direction will keep not less than 5 minutes apart, except in closing up at stations.

A train following a train carrying passengers will keep not less than 10 minutes behind it.

92. A train will not leave a station in advance of its schedule leaving time.

93. Within yard limits the main track may be used without protecting against second and third class extra trains and engines. Second and third class extra trains and engines will move within yard limits at yard speed unless the main track is known to be clear.

NOTE.—Where block signal rules are in effect, "known to be clear" includes when track is known to be clear by signal indication.

94. A train which overtakes another train so disabled that it cannot proceed will pass it, if practicable, and if necessary will assume the schedule and take the train orders of the disabled train, proceed to the next available point of communication, and there report to the dispatcher. The disabled train will assume the right or schedule and take the train orders of the last train with which it has exchanged, and will, when able, proceed to and report from the next available point of communication.

95. Two or more sections may be run on the same schedule.

Each section has equal timetable authority.

A train will not display signals for a following section, except as prescribed by Rule 85, without orders from the chief dispatcher.

S-96. Unless otherwise provided, signals will not be ordered displayed, nor taken down, at other than a register station for the train displaying the signals.

97. Unless otherwise provided, extra trains will not be run without train orders.

98. Trains will approach the end of two or more tracks, junctions, railroad crossings at grade, and drawbridges, prepared to stop, unless the switches are properly lined, signals indicate proceed, and track is clear. Where required by regulations, trains will stop.

99. When a train stops under circumstances in which it may be overtaken by another train, the flagman will go back immediately with flagman's signals a sufficient distance to insure full protection, placing two torpedoes, and when necessary, in addition, displaying lighted fuses. When recalled and safety to the train will permit, he may return.

When the conditions require, he will leave the torpedoes and a lighted fusee.

The front of the train will be protected in the same way when necessary by the head brakeman or fireman.

When a train is moving under circumstances in which it may be

overtaken by another train, the flagman will take such action as may be necessary to insure full protection. By night, or by day, when the view is obscured, lighted fuseses will be thrown off at proper intervals.

When day signals cannot be plainly seen, owing to weather or other conditions, night signals will also be used. Conductors and enginemen are responsible for the protection of their trains.

100. When the flagman goes back to protect the rear of the train and is left behind, another trainman will take his place on the train.

101. Trains will be fully protected against any known condition, not covered by the rules, which interferes with their safe passage.

102. When a train is disabled or stopped suddenly by an emergency application of the brakes or other causes, adjacent tracks, as well as tracks of other railroads that are likely to be obstructed, will at once be protected until it is ascertained that they are safe and clear for the movement of trains.

103. When cars are pushed by an engine, and the conditions require, a trainman will take a conspicuous position on the leading car; and when shifting over highway crossings at grade not protected by a watchman or by gates, a member of the crew will protect the crossing.

104. Conductors are responsible for the position of switches used by them and their trainmen, except where switch tenders are stationed. Switches will be properly lined after having been used.

A switch will not be left open for a following train or engine unless in charge of a trainman of such train or engine.

When practicable, the engineman will see that the switches near the engine are properly lined.

A train or engine will not foul a track until switches connected with the movement are properly lined. When waiting to cross from one track to another and during the approach or passage of a train or engine on tracks involved, all switches connected with the movement will be secured in the normal position. Switches will not be restored to normal position until a movement is completed or clear of the main track involved.

Where trains or engines are required to be reported clear of main track such report will not be made until switch has been secured in its normal position.

NOTE.—Rule 104 applies only to hand-operated switches.

105. Unless otherwise provided, trains using a siding will proceed at reduced speed.

Sidings of an assigned direction will not be used in a reverse direc-

tion unless authorized by the dispatcher, or in an emergency under flag protection.

106. Both the conductor and the engineman are responsible for the safety of the train and the observance of the rules, and, under conditions not provided for by the rules, will take every precaution for protection.

107. When a passenger train is receiving or discharging traffic on the side toward a station, a train or engine will not pass between it and the station unless proper safeguards are provided.

108. In case of doubt or uncertainty, as safe a course as is justified by the military situation will be taken.

D-151. Where two main tracks are in service trains will keep to the right unless otherwise provided.

Where three or more main tracks are in service, they shall be designated by numbers and their use indicated by special instructions.

D-152. When a train crosses over to or obstructs another track, unless otherwise provided, it will first be protected as prescribed by Rule 99.

RULES FOR MOVEMENT BY TRAIN ORDERS

200. In the absence of military railway service telephone and telegraph lines, the quickest available means for delivering train orders to train crews will be utilized.

Orders so delivered will be acted upon the same as if delivered in the usual manner.

201. For movements not provided for by timetable, train orders will be issued by authority and over the signature of the chief dispatcher and will contain only the information or instructions essential to such movements. They will be brief and clear; in the prescribed forms when applicable; and without erasure, alteration, or interlineation.

Figures in train orders will not be surrounded by brackets, circles, or other characters.

202. Each train order will be given in the same words to all personnel or trains addressed.

203. Train orders will be numbered consecutively each day, beginning at midnight.

204. Train orders will be addressed to those who are to execute them, naming the place at which each is to receive his copy. Those for a train will be addressed to the conductor and enginemen, and also to anyone who acts as its pilot. A copy for each person addressed will be supplied by the operator.

Orders addressed to operators restricting the movement of trains will be respected by conductors and enginemen the same as if addressed to them.

Enginemen will show train orders to firemen, and when practicable to forward trainmen. Conductors will show train orders when practicable to trainmen.

205. Each train order will be written in full in a book provided for the purpose at the office of the chief dispatcher; with it will be recorded the names of those who have signed for the order; the time and the signals which show when and from what offices the order was repeated and the responses transmitted; and the train dispatcher's initials. These records will be made at once and never from memory or memoranda.

206. In train orders regular trains will be designated by number as "No 10", and sections as "Second 10", adding engine numbers or names. Extra trains will be designated by the engine numbers or names, and the direction as "Extra 798, 'East' or 'West'"; or "Extra Scout 'East' or 'West'".

For the movement of an engine of another company the initials, as well as the engine number or name, will be used.

Even hours, as "10 00 AM" or "15 00" (3:00 PM), will not be used in stating time in train orders.

In transmitting train orders by telegraph, time may be stated in figures only or duplicated in words.

In transmitting train orders by telephone, the numbers of trains and engines in the address may be pronounced and then spelled, letter by letter, if so desired. All stations and numerals in the body of an order will first be plainly pronounced and then spelled, letter by letter, thus: Aurora, A-u-r-o-r-a, and One naught five, O-n-e n-a-u-g-h-t f-i-v-e.

The letters duplicating the names of stations and numerals will not be written in the order book nor upon train orders, except time, which may be duplicated in words.

When train orders are transmitted by telegraph, the train dispatcher will underscore each word and figure at the time it is repeated. When transmitted by telephone, he will write the order as he transmits it and underscore as prescribed above.

When two or more engines are coupled and a designation is made by engine numbers, the number of the leading engine will be used in train orders.

207. To transmit a train order, the signal "31" or the signal "19" followed by the direction, will be given to each office addressed, the

number of copies being stated, if more or less than three, thus, "31, West, copy 5," or "19, East, copy 2."

S-208. A train order to be sent to two or more offices will be transmitted simultaneously to as many of them as practicable. When not sent simultaneously to all, the order will be sent first to the superior train.

The several addresses will be in the order of superiority of trains, each office taking its proper address, and, when practicable, will include the operator at the meeting or waiting point.

Copies of the order addressed to the operator at the meeting or waiting point will be delivered to the trains affected until all have arrived from one direction.

A train order will not be sent to a superior train at the meeting or waiting point if it can be avoided. When an order is so sent, the fact will be stated in the order and special precautions will be taken to insure safety.

D-208. A train order to be sent to two or more offices will be transmitted simultaneously to as many of them as practicable. When not sent simultaneously to all, the order will be sent first to the superior train.

The several addresses will be in the order of superiority of trains, each office taking its proper address.

209. Operators receiving train orders will write or typewrite them in manifold during transmission. If the requisite number of copies cannot be made at one writing, they will make others from the original copy and repeat to the train dispatcher from the new copies each time additional copies are made. They will retain a copy of each train order. The time, complete, and the signature of the operator will be in his handwriting.

210. When a "31" train order has been transmitted, operators will, unless otherwise directed, repeat it at once from the manifold copy in the succession in which the several offices have been addressed, and then write the time of repetition on the order. Each operator receiving the order will observe whether the others repeat correctly.

The conductor or engineman and others addressed will read it to the operator and then sign it, and the operators will send their signatures, preceded by the number of the order, to the train dispatcher. The response "complete" and the time, with the initials of the chief dispatcher, will then be given by the train dispatcher. Each operator receiving this response will then write on each copy the word "complete", the time, and his last name in full; he will then deliver a copy to each person addressed, except that when the order is signed by the conductor, he will personally deliver a copy

of it to each engineman; the engineman will then read the order to the conductor before proceeding.

211. When a "19" train order has been transmitted, operators will, unless otherwise directed, repeat it at once from the manifold copy, in the succession in which the several offices have been addressed. Each operator receiving the order will observe whether the others repeat correctly. When the order has been repeated correctly by an operator, the response "complete", and the time, with the initials of the chief dispatcher, will be given by the train dispatcher. The operator receiving this response will then write on each copy the word "complete", the time, and his last name in full, and will personally deliver a copy to each person addressed without taking his signature. But when delivery to engineman will take the operator from the immediate vicinity of his office, the engineman's copy will be delivered by a member of the train crew.

When a "19" train order restricting the superiority of a train is issued for it at the point where such superiority is restricted, the train will be brought to a stop before delivery of the order.

212. When so directed by the train dispatcher, a train order may be acknowledged before repeating by the operator responding: "*X Number of Train order to Train Number*", with the operator's initials and office signal. The operator will then write on the order his initials and the time.

213. "Completed" will not be given to a train order for delivery to an inferior train until the order has been repeated or the "X" response has been sent by the operator who receives the order for the superior train.

214. When a train order has been repeated or "X" response sent, and before "complete" has been given, the order will be treated as a holding order for the train addressed, but will not be otherwise acted on until "complete" has been given.

If the means of communication fails before an office has repeated an order or has sent the "X" response, the order at that office is of no effect and will be there treated as if it had not been sent.

216. For train orders delivered by the train dispatcher the requirements as to the record and delivery are the same as at other offices.

217. A train order to be delivered to a train at a point not a train-order office, or at one at which the office is closed, will be addressed to—

"C and E_____ at _____ care of_____" and will be forwarded and delivered by the conductor or other person in whose care it is addressed. When Form 31 is used, "complete" will be given over the

signature of the person by whom the order is to be delivered, who will be supplied with copies for the conductor and engineman addressed, and a copy upon which he shall take their signatures. He will deliver this copy to the first operator accessible, who will at once transmit the signatures of the conductor and engineman to the train dispatcher and preserve the copy.

Orders so delivered will be acted on as if "complete" had been given in the usual way.

For orders which are sent in the manner herein provided to a train, the superiority of which is thereby restricted, "complete" will not be given to an inferior train until the signatures of the conductor and engineman of the superior train have been sent to the train dispatcher.

218. When a train is named in a train order by its schedule number alone, all sections of that schedule are included and each will have copies delivered to it.

219. An operator will not repeat or give the "X" response to a train order for a train which has been cleared, or of which the engine has passed his train-order signal, until he has obtained the signatures of the conductor and engineman to the order.

220. Train orders once in effect continue so until fulfilled, superseded, or annulled. Any part of an order specifying a particular movement may be either superseded or annulled.

Orders held by or issued for or any part of an order relating to a regular train become void when such train loses both right and schedule, as prescribed by Rules 4 and 82, or its schedule is annulled.

When a conductor or engineman, or both, is relieved before the completion of a trip, all train orders and instructions held will be delivered to the relieving conductor or engineman. Such orders or instructions will be compared by the conductor and engineman before proceeding.

221. Unless otherwise provided, a fixed signal will be used at each train-order office, which shall indicate "stop" when there is an operator on duty, except when changed to "proceed" to allow a train to pass for which there are no train orders. While "stop" is indicated, trains will not proceed without Clearance Form A.

Clearance Form A will be delivered, together with all train orders, showing the number of orders for the train and the number of each order. Conductors and enginemen will see that the information shown on the Clearance Form A corresponds with the Form 19 and Form 31 train orders received.

222. Operators will promptly record and report to the train dis-

patcher the time of arrival and departure of all trains and the direction of extra trains.

They will observe trains and report at once to the train dispatcher if the proper signals are not displayed.

223. The following signals and abbreviations may be used:

Initials for signature of the chief dispatcher.

Such office and other signals as are arranged by the chief dispatcher.

C & E for conductor and engineman.

X—Train will be held until train order is made "complete."

Com —for complete.

OS —train report.

No —for number.

Eng —for engine.

Sec —for section.

Psgr —for passenger.

Frt —for freight.

Mins —for minutes.

Jct —for junction.

Dispr—for train dispatcher.

Opr —for operator.

31 or 19—to clear the line for train orders, and for operators to ask for train orders.

The usual abbreviations for the names of the months and stations.

FORMS OF TRAIN ORDERS

NOTE.—Forms with a prefix "S" are for single track, those with a prefix "D" are for two or more tracks; those without prefixes "S" or "D" are for single or two or more tracks.

FORM S-A

Fixing meeting points for opposing trains.

(1) No 1 eng 111 meet No 2 eng 112 at B.

No 3 eng 113 meet Second 4 eng 214 at B.

No 5 eng 115 meet Extra 95 east at B.

Psgr Extra 652 north meet Extra 231 south at B.

(2) No 2 eng 112 and Second 4 eng 214 meet No 1 eng 111 and No 3 eng 113 at C, and Extra 95 west at D (and so on).

No 1 eng 111 meet No 2 eng 112 at B Second 4 eng 214 at C and Extra 95 east at D.

Trains receiving these orders will run with respect to each other to the designated points and there meet in the manner prescribed by the rules.

FORM B

Directing a train to pass or run ahead of another train.

- (1) No 1 eng 111 pass No 3 eng 113 at K.

Both trains will run according to rule to the designated point and there arrange for the rear train to pass promptly.

- (2) Extra 594 east run ahead of No 6 eng 169 M to B.

The first-named train will run ahead of the second-named train between the designated points.

- (3) Extra 594 east pass No 3 eng 113 at K.

When an inferior train receives an order to pass a superior train, right is conferred to run ahead of the train passed from the designated point.

FORM S-C

Giving right over an opposing train.

- (1) No 1 eng 1391 has right over No 2 eng 1369 G to X.

If the second-named train reaches the point last named before the other arrives, it may proceed, keeping clear of the schedule of the opposing train as required by rule.

- (2) Extra 37 east has right over No 3 eng 1333 F to A.

The regular train will not go beyond the point last named until the extra train has arrived, unless directed by train order to do so.

These orders give right to the train first named over the other train between the points named. If the trains meet at either of the designated points, the first-named train will take the siding, unless the order otherwise prescribes.

FORM E

Time orders.

- (1) No 1 eng 1860 run 50 mins late A to G.

This makes the schedule time of the train named, between the stations designated, as much later as stated in the order, and any other train receiving the order is required to run with respect to this later time, as before required to run with respect to the regular schedule time. The time in the order should be such as can be easily added to the schedule time.

- (2) No 1 eng 1860 run 50 mins late A to G, and 20 mins late G to K, etc.

This makes the schedule time of the train named, between the stations designated, as much later as stated in the order, and any other train receiving the order is required to run with respect to this later

time, as before required to run with respect to the regular schedule time. The time in the order should be such as can be easily added to the schedule time.

(3) No 1 eng 1860 and No 3 eng 1858 wait at—

N until 9:59 AM

P until 10:30 AM

R until 10:55 AM, etc.

S until 2:16 PM

or

S until 14:16

The train or trains named will not pass the designated points before the times given. Other trains receiving the order are required to run with respect to the time specified at the designated points or any intermediate station where schedule time is earlier than the time specified in the order as before required to run with respect to the schedule time of the train, or trains, named.

FORM S-E

(1) No 1 eng 1860 wait at H until 9:59 AM for No 2 eng 1854.

The train first named will not pass the designated points before the time given, unless the other train has arrived. The train last named is required to run with respect to the time specified, at the designated point or any intermediate station where schedule time is earlier than the time specified in the order, as before required to run with respect to the schedule time of the train first named.

FORM F

For sections.

(1) Eng 20 display signals and run as First 1 A to Z.

To be used when the number of the engine for which signals are displayed is unknown, and is to be followed by (2), both being single order examples.

(2) Eng 25 run as Second 1 A to Z.

(3) Second 1 eng 65 displays signals B to E for Eng 99.

(4) Engs 20, 25, and 99 run as First, Second, and Third 1 A to Z.

To add an intermediate section, (5) will be used.

(5) Eng 85 display signals and run as Second 1 A to Z. Following sections change numbers accordingly.

The engine named will display signals and run as directed,

and following sections will take the next higher number. To drop an intermediate section, (6) will be used.

(6) Eng 85 is withdrawn as Second 1 at H. Following sections change numbers accordingly.

The engine named will drop out at H, and following sections will take the next lower number.

To substitute one engine for another on a section, (7) will be used.

(7) Eng 18 instead of Eng 85 display signals and run as Second 1 R to Z.

The second-named engine will drop out at R, and be replaced by the first-named engine.

Following sections need not be addressed.

If the second-named engine is the last section, the words "display signals and" will be omitted.

To discontinue the display of signals, (8) will be used.

(8) Second 1 eng. 18 take down signals at D.

The train named will take down signals as directed, and a following section will not proceed beyond the designated point.

To pass one section by another, (9) will be used.

(9) Engs 99 and 25 reverse positions as second and third 1 H to Z.

Conductors and enginemen of the trains addressed will exchange orders and signals. Following sections, if any, need not be addressed.

Each section affected by these orders must have copies, and will arrange signals accordingly.

To annul a section for which signals have been displayed over a division, or any part thereof, when no train is to follow the signals, Form K will be used.

When sections are run to an intermediate point of a schedule, the train order will specify which section or sections shall assume the schedule beyond such point.

FORM G

Extra trains.

(1) Eng 99 run extra A to F.

(2) Eng Pathfinder run passenger extra A to X.

(3) Eng 99 run extra A to F and return to C.

The extra must go to F before returning to C.

FORM S-H

Work extra.

(1) Eng 292 works extra 6:45 AM until 5:45 PM between D and E.

The work extra will, whether standing or moving, protect itself against extra trains within the working limits in both directions, as prescribed by the rules. The time of regular trains will be cleared.

This may be modified by adding—

(2) Not protecting against eastward extra trains.

The work extra will protect only against westward extra trains. The time of regular trains will be cleared.

(3) Not protecting against extra trains.

Protection against extra trains is not required. The time of regular trains will be cleared.

When a work extra has been instructed by order not to protect against extra trains, and, afterward, it is desired to have it clear the track or protect against a designated extra, an order may be given in the following form:

(4) Work extra 292 clears, or protects against, Extra 76 east between D and E after 2:10 PM.

Extra 76 east will not enter the working limits before the time given, and will then run expecting to find the work extra clear of the main track, or protecting itself, as the order may require.

To enable a work extra to work upon the time of a regular train, the following form will be used:

(5) Work extra 292 protects against No 55, or ----- class trains, between D and E.

The work extra may work upon the time of the train or trains mentioned in the order, and will protect itself against such train or trains. The regular train or trains receiving the order will run expecting to find the work extra protecting itself.

When a work extra is to be given exclusive right over all trains the following form will be used:

(6) Work Extra 292 has right over all trains between D and E, 7:15 PM until 1:15 AM.

This gives the work extra the exclusive right between the points designated between the times named.

The working limits should be as short as practicable; to be changed as the progress of the work may require.

Works extras will give way to all trains as promptly as practicable.

Whenever extra trains are run over working limits, they will be given a copy of the order sent to the work extra. Should the working order instruct a work extra not to protect against extra trains in one or both directions, extra trains will protect against the work extra; if the order indicates that the work extra is protecting itself against other trains, they will run expecting to find the work extra protecting itself accordingly.

FORM D-H

Work extra.

(1) Eng 292 works extra on ----- track, or ----- tracks, 6:45 AM until 5:45 PM between D and E.

The work extra will, whether standing or moving, protect itself within the working limits against extras moving with the current of traffic on the track or tracks named. The time of regular trains will be cleared.

This form may be modified by adding—

(2) Not protecting against extra trains:

Protection against extra trains is not required. The time of regular trains will be cleared.

To enable a work extra to work upon the time of a regular train, the following form may be used:

(3) Work extra 292 protects against No 55 eng 1942 between D and E.

The work extra may work upon the time of the train or trains mentioned in the order and will protect against such train or trains.

The regular train or trains receiving the order will run, expecting to find the work extra protecting itself.

When it is desired to move a train against the current of traffic over the working limits, provision will be made for the protection of such movement.

When a work extra is to be given exclusive right over all trains, the following form will be used:

(4) Work extra 292 has right over all trains on ----- and ----- tracks between G and H, 7:01 PM until 1:01 AM.

This gives the work extra the exclusive right to the track, or tracks, mentioned between the points designated between the times named.

The working limits should be as short as practicable; to be changed as the progress of the work may require.

Work extras will give way to all trains as promptly as practicable.

FORM J

Holding order.

- (1) Hold No 2 eng 1060.
- (2) Hold all, or eastward, trains.

When a train has been so held it will not proceed until the order to hold is annulled, or an order given to the operator in the following form:

- (3) ----- may go.

These orders will be addressed to the operator and acknowledged in the usual manner, and will be delivered to conductors and enginemen of all trains affected.

Form J will be used only when necessary to hold trains until orders can be given, or in case of emergency.

FORM K

Annulling a schedule or a section.

- (1) No 1, due to leave A Feb 29th, is annulled A to Z.
- (2) Second 5, due to leave E Feb 29th, is annulled E to G.

The schedule or section annulled becomes void between the points named and cannot be restored.

Form K will not be combined with other forms of train orders.

FORM L

Annulling an order.

- (1) Order No. 10 is annulled.

If an order which is to be annulled has not been delivered to a train, the annulling order will be addressed to the operator, who will destroy all copies of the order annulled but his own, and write on that copy: "Annulled by Order No. -----".

An order which has been annulled will not be reissued under its original number.

FORM S-M

Annulling part of an order.

- (1) That part of Order No. 10, reading No. 1 eng. 963 meet No. 2 eng. 970 at S, is annulled.
- (2) That part of Order No. 12, reading No. 3 eng. 1069 pass No. 1 eng. 965 at S, is annulled.

Form S-M will be used only when that part of the order not annulled is clear in its wording.

FORM D-M

Annuling part of an order.

(1) That part of Order No. 10, reading Extra 263 west pass No. 1 eng. 965 at S, is annulled.

(2) That part of Order No. 12, reading No. 3 eng. 1069 pass No. 1 eng. 965 at S, is annulled.

Form D-M will be used only when that part of the order not annulled is clear in its wording.

FORM S-P

Superseding an order or a part of an order.

This order will be given by adding to prescribed forms the words "instead of -----".

(1) No. 1 eng. 111 meet No. 2 eng. 1102 at C instead of B.

An order which has been superseded will not be reissued under its original number.

When a train is directed by train order to take siding for another train, such instructions apply only at the point designated in that order, and do not apply to the superseding order unless so specified.

FORM D-P

Superseding an order or part of an order.

This order will be given by adding to prescribed forms the words "instead of -----".

(1) No. 1 eng. 1111 pass No. 3 eng. 1103 at C, instead of B.

An order which has been superseded will not be reissued under its original number.

FORM D-R

Providing for a movement against the current of traffic.

(1) No. 1 eng. 999 has right over opposing trains on ----- track C to F.

The designated train will use the track specified between the points named and has right over opposing trains on that track between those points. Opposing trains will not leave the point last named until the designated train arrives.

All trains between the points named moving with the current of traffic in the same direction as designated train will receive a copy of the order, and may then proceed on their schedules, or rights.

This order may be modified as follows:

(2) After No. 4 eng. 1901 arrives at C No. 1 eng. 999 has right over opposing trains on ----- track C to F.

The train to be moved against the current of traffic will not leave the first-named point until the arrival of the first-named train.

A train will not be moved against the current of traffic until the track on which it is to run has been cleared of opposing trains.

MILITARY RAILWAY SERVICE
U. S. ARMY



CLEARANCE FORM A



_____ M _____ 19 _____

To Conductor and Engineman _____ at _____

I have _____ orders for your train.

Order No. _____ Order No. _____ Order No. _____ Order No. _____

Order No. _____ Order No. _____ Order No. _____ Order No. _____

have been delivered.

This form is authority to pass stop-indication.

Block _____

Signalman

Manifold copies will be made for each Conductor, Engineman, and Signalman, the latter retaining a copy.

(To be printed on white paper 5" x 6 3/4")

SPECIFICATIONS FOR TRAIN ORDER FORMS AND BOOKS

FORM 19	MILITARY RAILWAY SERVICE UNITED STATES ARMY	FORM 19
Train Order No. _____ From _____ 19__		
To C & E _____ At _____ Station _____		
X _____ Opr. _____ M _____		
_____ Chief Dispatcher. Conductor and Engineman must each have a copy of this order		
Mode _____ Time _____ M _____ Opr _____		

FOR 19 ORDERS

Form as here shown.

Form $6\frac{3}{4}$ x $9\frac{1}{4}$ inches, not perforated. Book $6\frac{3}{4}$ x $9\frac{1}{4}$ inches. 300 leaves. Glued at top. Manila cover on face and stiff back.

Paper green, sized, and of such thickness as to admit of making nine good manifold copies with stylus and double carbons.

To be used with double carbon paper, $6\frac{3}{4}$ x $9\frac{1}{4}$ inches, and a stiff tin, same size, corners rounded.

FORM 31		MILITARY RAILWAY SERVICE UNITED STATES ARMY		FORM 31	
Train Order No. From 19....					
To C & E					
At Station					
X Opr M					
<div style="text-align: right; margin-top: 10px;"> Chief Dispatcher. Conductor and Enginemen must each have a copy of this order. </div>					
Repeated at M					
CONDUCTOR	ENGINEMAN	TRAIN	MADE	TIME	OPERATOR
				M	
				M	
				M	
				M	
				M	
				M	
				M	

FOR 31 ORDERS

Form as here shown.

Form $6\frac{3}{4} \times 9\frac{1}{4}$ inches not perforated. Book $6\frac{3}{4} \times 9\frac{1}{4}$ inches.

300 leaves. Glued at top. Manila cover on face and stiff back.

Paper yellow, sized, and of such thickness as to admit of making nine good manifold copies with stylus and double carbons.

To be used with double carbon paper, $6\frac{3}{4} \times 9\frac{1}{4}$ inches, and a stiff tin, same size, corners rounded.

TRAIN MOVEMENT BY BLOCK SIGNALS

DEFINITIONS

Block system.—A series of consecutive blocks.

Manual block system.—A series of consecutive blocks, governed by block signals operated manually, upon information by telegraph, telephone, or other means of communication.

Automatic block system.—A series of consecutive blocks governed by block signals, cab signals, or both, actuated by a train, or engine, or by certain conditions affecting the use of a block.

Interlocking.—An arrangement of signals and signal appliances so interconnected that their movements must succeed each other in proper sequence and for which interlocking rules are in effect. It may be operated manually or automatically.

Interlocking limits.—The tracks between the home signals of an interlocking.

Block station.—A place from which block signals are operated.

Interlocking station.—A place from which an interlocking is operated.

Block.—A length of track of defined limits, the use of which by trains is governed by block signals, cab signals, or both.

Fixed signal.—A signal of fixed location indicating a condition affecting the movement of a train or engine.

Cab signal.—A signal located in engineman's compartment or cab, indicating a condition affecting the movement of a train or engine, and used in conjunction with interlocking signals and block signals, or in lieu of block signals.

Block signal.—A fixed signal at the entrance of a block to govern trains entering and using that block.

Interlocking signals.—The fixed signals of an interlocking.

Home signal.—A fixed signal at the entrance of a route or block to govern trains or engines entering and using that route or block.

Approach signal.—A fixed signal used in connection with one or more signals to govern the approach thereto.

Dwarf signal.—A low home signal.

Limited speed.—A speed not exceeding 15 miles per hour.

Medium speed.—A speed not exceeding 10 miles per hour.

Slow speed.—A speed not exceeding 5 miles per hour.

Restricted speed.—Proceed prepared to stop short of train, obstruction, or switch not properly lined and to look out for broken rail.

RULES GOVERNING THE MOVEMENT OF TRAINS IN THE SAME DIRECTION

251. On portions of the railroad, and on designated tracks so specified on the timetable, trains will run with reference to other trains in the same direction by block signals whose indications will supersede the superiority of trains.

253. The dispatcher will be advised in advance of any known condition that will delay the train or prevent it from making usual speed.

254. Except as affected by Rule 251, all block signal rules and operating manual remain in force.

RULES GOVERNING OPPOSING AND FOLLOWING MOVEMENT OF TRAINS

261. On portions of the railroad and on designated tracks so specified on the timetable, trains will be governed by block signals whose indications will supersede the superiority of trains for both opposing and following movements on the same track.

263. The dispatcher will be advised in advance of any known condition that will delay the train or prevent it from making usual speed.

264. Except as affected by Rule 261, all block signal rules and operating manual remain in force.

FIXED SIGNALS

(Rules 281 to 292, inclusive)

Aspects may be shown by the position of semaphore arms, color of lights, position of lights, or a combination of color and position of lights.

Day and night aspects for color light signals shall have the same colors as the night aspects of the semaphore signals.

Day and night aspects for position light signals shall have the same positions as the day aspects of the semaphore signals.

Aspects shown are typical.

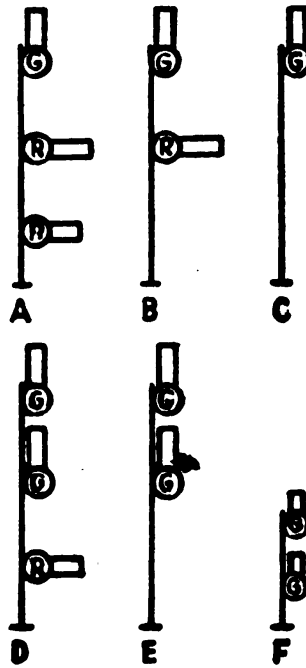
NOTE.—In the following illustrations of typical signal aspects, Rules 281 to 292 inclusive—

R—Red

Y—Yellow

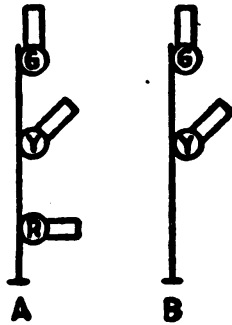
G—Green

RULE 281



Indication—Proceed.
Name: Clear.

RULE 281A



Indication—Proceed approaching second signal at medium speed.
Name: Advance approach medium.

RULE 281B



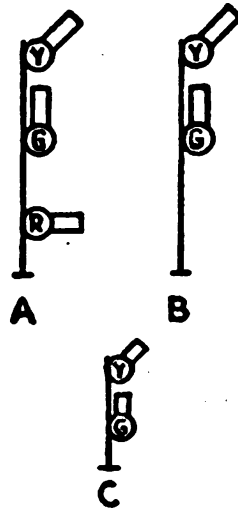
Indication—Proceed approaching next signal at limited speed.
Name: Approach limited.

RULE 281C



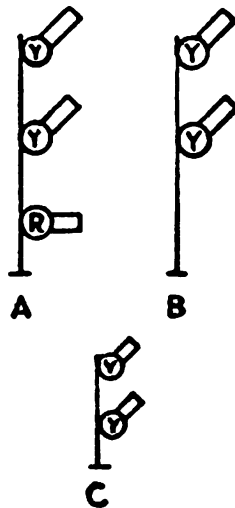
Indication—Proceed; limited speed within interlocking limits.
Name: Limited—clear.

RULE 282



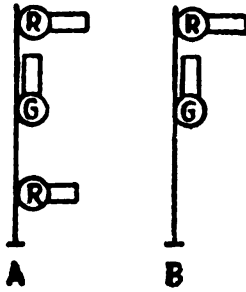
Indication—Proceed approaching next signal at medium speed.
Name: Approach medium.

RULE 282A



Indication—Proceed preparing to stop at second signal.
Name: Advance approach.

RULE 283



Indication—Proceed ; medium speed within interlocking limits.
Name : Medium-clear.

RULE 283A



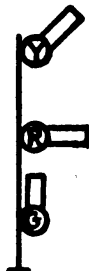
Indication—Proceed preparing to stop at second signal ; medium speed within interlocking limits.
Name : Medium—advance approach.

RULE 283B



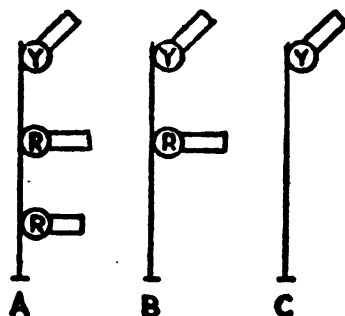
Indication—Proceed at medium speed approaching next signal at slow speed.
Name : Medium—approach slow.

RULE 284



Indication—Proceed approaching next signal at slow speed. Train exceeding medium speed must at once reduce to that speed.
Name : Approach slow.

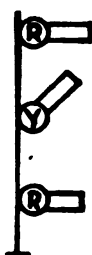
RULE 285



Indication—Proceed preparing to stop at next signal. Train exceeding medium speed must at once reduce to that speed.

Name: Approach.

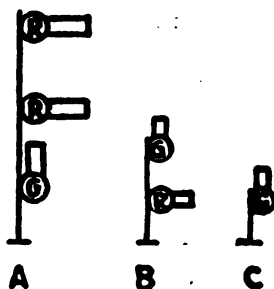
RULE 286



Indication—Proceed at medium speed preparing to stop at next signal.

Name: Medium—approach.

RULE 287



Indication—Proceed; slow speed within interlocking limits.

Name: Slow—clear.

RULE 288



Indication—Proceed preparing to stop at next signal; slow speed within interlocking limits.

Name: Slew—approach.

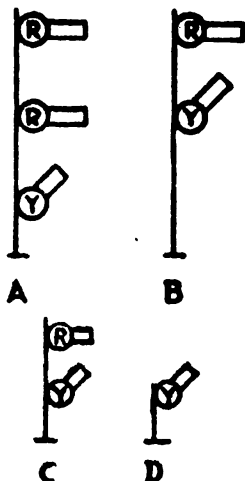
RULE 289



Designate by
 1—Letter plate
 or
 2—Marker light
 or
 3—Shape of arm
 or
 4—Combination of these distinguishing features.

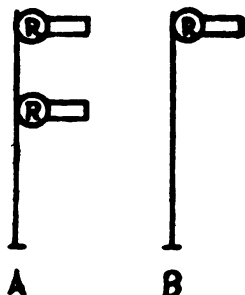
Indication—Block occupied; proceed prepared to stop short of train ahead.
 Name: Permissive.

RULE 290



Indication—Proceed at restricted speed.
 Name: Restricting.

RULE 291

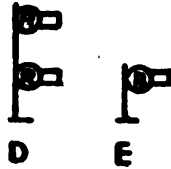
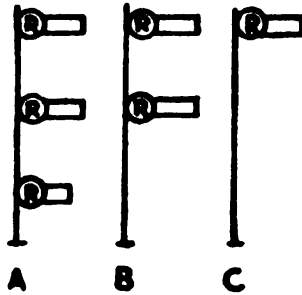


Designate by: 1—Number plate
 or
 2—Marker light
 or
 3—Pointed blade
 or
 4—Combination of these distinguishing features.

Indication—Stop; then proceed at restricted speed.
 Name: Stop and proceed.

NOTE.—Railroads desiring to avoid stopping trains may arrange accordingly.

RULE 292



Indication—Stop.
Name: Stop.

293. A signal imperfectly displayed, or the absence of a signal at a place where a signal is usually shown, will be regarded as the most restrictive indication that can be given by that signal, except that when the day indication is plainly seen, or when sufficient lights in a position or color position light signal are displayed to determine indication of the signal, it will govern.

A signal imperfectly displayed, or the absence of a signal at a place where a signal is usually shown, will be promptly reported to the dispatcher.

294. All members of engine and train crews will, when practicable, communicate to each other by its name the indication of each signal affecting the movement of their train or engine.

MANUAL BLOCK SYSTEM RULES

305. Block signals govern the use of the blocks, but, unless otherwise provided, do not supersede the superiority of trains, nor dispense with the use or the observance of other signals whenever and wherever they may be required.

306. When a block station is open at an irregular hour, trains will be notified when possible by train order.

307. A train having entered a block on other than a "proceed" indication, will not accept a "proceed" indication at any intermediate block station which was closed when such train entered the block, without receiving Clearance Form A.

308. When Clearance Form A is used information will be shown

as to condition of block, whether "clear" or "occupied". If block is occupied, train will proceed prepared to stop short of train ahead.

SIGNALMEN

311. Signals will be kept in the position displaying the most restrictive indication, except when displayed for an immediate movement.

312. Appliances will be operated carefully and only by those charged with that duty. If any irregularity affecting their operation is detected, the signals will be displayed to give their most restrictive indication until repairs are made.

313. Signalmen will observe, as far as practicable, whether the indications of the signals correspond with the positions of the levers.

314. Signalmen will not make nor permit any unauthorized repairs, alterations, or additions to the apparatus. Any defects in the appliances will be promptly reported to the dispatcher.

315. A block record will be kept at each block station.

316. Communicating code.

1—Keep block signal in stop position for opposing train.

13—I understand.

2—Block Clear.

5—Block not clear of train other than passenger.

56—Block not clear of passenger train.

8—Opening block station. Answer by 2, 5 or 56.

9—Closing block station, followed by 2. If the block is clear, to be answered by 13, followed by 2. If the block is not clear, to be answered by 5 or 56

When two or more tracks are used in the same direction, signalmen in using the communicating code will also specify the track.

317. On single track, to admit a train to a block, the signalman will examine the block record and, if the block is clear of opposing trains and preceding passenger trains, give "1 for _____," to the next block station in advance. If it is proper for the train to be admitted, the signalman in advance will reply "2 for _____", or "5 of _____". The signalman at the entrance of the block will then display the proper signal indication.

A train will not be admitted to a block occupied by an opposing train, or by a passenger train, except as provided in Rule 333, or by train order. A train may be permitted to follow a train other than a passenger train into a block under permissive indication or Clearance Form A.

318. On two or more tracks, to admit a train to a block, the signalman will examine the block record and display proper signal indication.

A train will not be admitted to a block which is occupied by a passenger train, except as provided in Rule 333 or by train order. A train may be permitted to follow a train other than a passenger train into a block under permissive indication or Clearance Form A.

319. When a train enters a block, the signalman will give train number and time to the next block station in advance. When the rear of the train has passed 500 feet beyond the block signal, he will give the record of the train to the next block station in the rear. This information will be entered on the block records.

320. Unless otherwise provided, signalmen will not ask for the block until they have received a report of the train from the next block station in the rear.

321. Signalmen will, as far as practicable, observe all passing trains and note whether they are complete and in order, and the markers properly displayed.

322. Should a train pass a block station with any indication of conditions endangering the train, or a train on another track, the signalman will immediately notify the signalman at the next block station in advance, and each will display "Stop" indication to all trains that may be affected, and will not permit any train to proceed until it is known that its track is not obstructed.

325. A signalman informed of any obstruction in a block will immediately notify the signalman at the other end of the block and each will display "Stop" indications to all trains that may be affected, and will not permit any train to proceed until it is known that its track is not obstructed.

326. When a train or engine takes a siding or otherwise clears the main track the signalman must know that it is clear of the block before giving "2" or displaying a "Clear" indication for that block.

The signalman will obtain control of the block before permitting a train or engine to reenter the block.

327. To permit a train or engine to enter a block or foul the main track, or to cross from one main track to another, the signalman will examine the block record and, if all the blocks affected are clear of approaching trains, he will provide or arrange for block protection before permission is given. Until movement is complete and block clear, trains will not be admitted to the block except as prescribed by Rule 289 or Clearance Form A.

All crossover movements will be entered on the block record.

328. When coupled trains are separated, as prescribed by Rule 364, the signalman will regard each portion as an independent train.

329. When necessary to stop a train for which other than a "Stop" indication has been displayed and accepted, the signalman will give hand signals in addition to displaying the "Stop" indication.

333. When from any cause, a signalman is unable to communicate with the next block station in advance, he will stop all trains approaching in that direction. Should no cause for detaining a train be known, it may then be permitted to proceed with Clearance Form A, provided ten minutes have elapsed since the passage of the last preceding train.

334. Hand signals will not be used when the proper indication can be displayed by the block signals, except as prescribed by Rule 329 or 343. When hand signals are necessary they will be given from such a place and in such a way that there can be no misunderstanding on the part of the enginemen or trainmen as to the signals, or as to the train or engine for which they are intended.

335. Block signals for a track apply only to trains moving with the current of traffic on that track. Signalmen will use Clearance Form A for blocking trains moving against the current of traffic.

336. Signalmen are responsible for the care of the block station, lamps, and supplies, and, unless otherwise provided, of the signal apparatus.

337. Lights in block stations will be so placed that they cannot be seen from approaching trains.

339. If a "Stop" indication is disregarded, the fact will be reported to the next block station in advance and then to dispatcher.

340. To open a block station the signalman will give 8 to the next block station in each direction and record the trains that are in the extended block. When trains, which were in the extended block when the block station was opened and which had passed his block station before it was opened, clear the block in advance, he will repeat the record to the block station in the rear.

341. A block station will not be closed except upon authority of dispatcher.

342. Unless otherwise provided, a block station will not be closed until the block in each direction is clear of all trains.

To close a block station, the signalman will give 9, followed by 2, to the next block station in each direction and when he receives 13, followed by 2, enter it on his block record, with the time it is received from each block station.

The block signals will then be secured in the clear position, all lights

extinguished, and the block wires and, when necessary, circuits arranged to work through the closed block station.

343. When a block station is open at an irregular hour, signalmen will use hand signals, in addition to block signals, to give the required indications until all trains have passed which have not been notified by train order that the block station is open.

344. Signalmen will not permit unauthorized persons to enter the block station.

ENGINE AND TRAIN CREWS

361. Block signals for a track apply only to trains moving with the current of traffic on that track.

Clearance Form A will be used for blocking trains moving against the current of traffic.

362. Trains will not pass a "Stop" indication without receiving Clearance Form A.

363. Trains will not proceed on hand signals as against block signals.

364. Unless otherwise directed, when two or more trains have been coupled and so move past any block station, they will be separated only at a block station and the signalman notified.

365. When a train or engine takes a siding or otherwise clears the main track, unless the switch involved is operated by the signalman, conductor or engineman will so report to the signalman. A train or engine will not enter a block or foul the main track, or cross from one main track to another, without permission of the signalman.

A train or engine having passed beyond the limits of a block will not back into that block without permission of the signalman.

370. When there is an obstruction between block stations, notice will be given to the nearest signalman.

371. When a train is stopped by a home or block signal the conductor or engineman will, when practicable, immediately ascertain the cause.

372. Conductors will report to dispatcher any unusual detention at block stations.

373. A block station will not be considered as closed, except as provided for by timetable, train order, or special instructions on bulletin board.

AUTOMATIC BLOCK SYSTEM RULES

505. Block signals, cab signals, or both, govern the use of the blocks, but, unless otherwise provided, do not supersede the superiority

of trains, nor dispense with the use or the observance of other signals whenever and wherever they may be required.

ENGINE AND TRAIN CREWS

508. Unless otherwise provided, block signals for a track apply only to trains or engines moving with the current of traffic on that track.

509. When a train is stopped by a "Stop" indication it will stay at that point until authorized to proceed, and will then proceed at restricted speed; or, in case of failure of means of communication, it may proceed, when preceded by a flagman, to the next signal displaying a "Proceed" indication.

510. When a train is stopped by a block signal, which is evidently out of order, unless otherwise provided, the fact will be reported to dispatcher.

511. Both switches of a cross-over must be open before a train or engine starts to make a cross-over movement, and the movement will be completed before either switch is restored to normal position.

512. Where switch indicators are used, the indications displayed do not relieve enginemen and trainmen from protecting their train as required by the rules.

513. Before a train or engine enters on or fouls a main track, or crosses from one main track to another, at bolt-locked switches, after operating the bolt-lock, the trainmen will wait two minutes before operating the switch; at non-bolt-locked switches trainmen will operate the switch and wait two minutes at the switch before making engine or train movement. This will not relieve personnel from the duty of promptly and properly protecting the movement.

513a. When a train or engine, having accepted a clear indication, is delayed in the block, it will proceed at restricted speed to the next signal.

514. A train or engine entering a block between signals will be protected as required by the rules and will proceed at restricted speed.

515. A train or engine, having passed beyond the limits of a block, will not back into that block except under protection as prescribed by Rule 99 or Train Order.

516. Should cab signal and fixed signal indications conflict, the more restrictive indication will govern.

517. Cab signal indications do not supersede fixed signal indications, except when cab signal changes to a more restrictive or a more favorable indication after passing a fixed signal.

518. If, after passing a fixed signal, the cab signal indication changes from restricted speed to a more favorable indication, speed will not be increased until train has run its length.

INTERLOCKING RULES

605. Interlocking signals govern the use of the routes of an interlocking, and as to movements within home signal limits, their indications supersede the superiority of trains, but do not dispense with the use or the observance of other signals whenever and wherever they may be required.

EMERGENCY SIGNALS

606. Whistle or horn.

NOTE.—The signals prescribed are illustrated by “o” for the short sounds, “——” for the longer sounds.

<i>Sound</i>	<i>Indication</i>
a. ———	All trains and engines within interlocking limits stop immediately.
b. o o	Resume normal movement after receiving the proper signal or permission from the signalman.
c. o o o	Whistle or horn test.
d. o o o o	Call signal maintainer or repairman.

SIGNALMEN

611. Signals will be kept in the position displaying the most restrictive indication, except when displayed for an immediate movement.

612. Appliances will be operated carefully and only by those charged with that duty. If any irregularity affecting their operation is detected, the signals will be displayed to give their most restrictive indication until repairs are made.

613. When the route is set, the signals will be operated sufficiently in advance of approaching trains to avoid delay.

615. When necessary to change any route for which the signals have been cleared for an approaching train or engine, switches, movable frogs, or derails will not be changed or signals cleared for any conflicting route until the train or engine for which the signals were first cleared has stopped.

616. The lever operating a switch, derail, movable frog, detector bar or lock will not be moved when any portion of a train or engine

is standing on or closely approaching the switch, derail, or movable frog.

617. Operating levers will be blocked or marked and will not be used when a track, switch, or signal is undergoing repairs, or when a track is obstructed.

619. If the force whose duty it is to keep switches clear when snow or sand is drifting, is not on hand when required, the fact will be reported to the dispatcher.

620. If a signal fails to work properly, its operation will be discontinued and, until repaired, the signal secured so as to display its most restrictive indication.

621. Signalmen will observe, as far as practicable, whether the indications of the signals correspond with the positions of the levers.

622. Signalmen will not make nor permit any unauthorized repairs, alterations, or additions to the interlocking.

Any defects in the interlocking will be promptly reported to the dispatcher.

623. If there is a derailment or if a switch, movable point frog, or derail is run through, or if any damage occurs to the track or interlocking, the signals will be restored so as to display their most restrictive indication and no movement will be permitted until all parts of the interlocking and track in danger of consequent damage have been examined and are known to be in safe condition.

624. When necessary to disconnect a switch, movable point frog, derail, facing point, lock, detector bar, or electric-locking circuits, all switches, movable point frogs and derails affected will be securely spiked or fastened in the required position and the levers blocked or marked in such a manner that they cannot be operated, before any train or engine is permitted to pass over them.

625. When switches, movable point frogs, derails, or signals are undergoing repairs, "Stop" indication will be displayed for any movement which may be affected by such repairs, until it has been ascertained from the repairman that the switches, movable point frogs, and derails are properly lined for such movement.

626. Signalmen will, as far as practicable, observe all passing trains and note whether they are complete and in order; should there be any indication of conditions endangering the train, or any other train, the signalman will take such measures for the protection of trains as may be practicable.

628. Hand signals will not be used when the proper indication can be displayed by the interlocking signals.

When the proper indication cannot be displayed, hand signals may be used.

629. If necessary to pass any interlocking signal indicating "Stop," hand signals will be used and the dispatcher notified.

630. Signalmen are responsible for the care of the interlocking station, lamps, and supplies.

631. Lights in interlocking stations will be so placed that they cannot be seen from approaching trains.

633. If a train or engine overruns a "Stop" indication, the fact will be reported to dispatcher.

634. Signalmen will not permit unauthorized persons to enter the interlocking station.

635. During a stated period an interlocking station may be closed upon authority of dispatcher. When so closed, switches and switch levers will be secured for routes that do not conflict, and signal levers placed in position so that signals will display the proper indication.

The interlocking station will be securely locked.

636. At interlocking stations, where there is a train order or block signal operated by the same signalmen, such signals will not be changed to display a "Proceed" indication for a train until after the interlocking signal has been changed to permit the train to proceed.

ENGINE AND TRAIN CREWS

661. If a signal indication, permitting a train or engine to proceed after being accepted, is changed to a "Stop" indication before it is reached, the stop will be made at once. Such occurrence will be reported to the dispatcher.

663. Trains or engines will not pass an interlocking signal indicating "Stop" without receiving hand signals, and will not proceed on hand signals until a member of the train or engine crew is fully informed of the situation; the movement will then be made at restricted speed.

667. Sand will not be used nor water allowed to run over movable parts of an interlocking or spring switch.

669. Trains or engines stopped by the signalman in making a movement through an interlocking will not move in either direction until they have received the proper signal from him.

670. A reverse movement within the limits of an interlocking, or a forward movement after making a reverse movement, will not be made without the proper interlocking signal indication or permission from the signalman.

671. While an interlocking station is closed, should a signal for an open route indicate "Stop", movements through the interlocking will

be preceded by a flagman. Before proceeding, the engineman and trainmen must know the route is properly lined.

The facts will be reported to the dispatcher from the first available point of communication.

[A. G. 062.11 (4-13-43).]

BY ORDER OF THE SECRETARY OF WAR:

G. C. MARSHALL,
Chief of Staff.

OFFICIAL:

J. A. ULIO,
Major General,
The Adjutant General.

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(For explanation of symbol see FM 21-6.)

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